## REMARKS/ARGUMENTS

At the outset, the professionalism demonstrated by the Examiner during the 2 May 2006 interview is appreciatively noted. During the interview, the references cited by the Examiner in the 28 December 2005 Office Action were discussed in light of clarifying amendments proposed to independent Claims 1, 11 and 22 by the undersigned agent, as set forth herein. The following paragraphs include all of the substantive discussions of the interview.

In the Official Action, the Examiner rejected Claims 1-3, 5-7, 11, 15, 16, 18-20 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Rhee (U.S. Patent 6,289,54) in view of Glaise, et al. (U.S. Patent 6,097,725; hereinafter "Glaise"). In setting forth these rejections, the Examiner correlated claimed elements of Applicant's invention, but acknowledged that Rhee does not specifically disclose simultaneously concatenating only selected portions of packet data from each of a plurality of frame packets into a concatenated bit field. The Examiner then stated that "Glaise discloses that data can be simultaneously gathered or concatenated" and that it would have been obvious to one of ordinary skill in the art to combine the teachings of Rhee and Glaise for "robustly reducing costs during the high-speed transmission of data packets in applications where time is limited while maintaining accuracy of the transmitted data". The Examiner rejected also Claims 4, 10, 17 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Rhee and Glaise in further view of Lewis, et al. (U.S. Patent

6,601,209; hereinafter "Lewis"). The Examiner acknowledged that Rhee does not disclose forward error correction bits generated using a BCH code and relied on Lewis for such disclosure. The Examiner rejected further Claims 8, 9, 13 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Rhee and Glaise in further view of Tan, et al. (U.S. Patent 6,075,576; hereinafter "Tan"). The Examiner stated that Rhee does not specifically disclose the setting of a flag indicating that a video object plane increment is to be used and the provision of a corresponding fixed time increment value and cited Tan as showing such. Further, the Examiner rejected Claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Rhee and Glaise in further view of Watanabe, et al. (U.S. Patent 6,084,888; hereinafter "Watanabe"). The Examiner acknowledged that Rhee does not show the use of a header extension code (HEC), but stated that such is well known in the art and cited Watanabe as demonstration of such.

Prior to discussing the Examiner's rejections, it is believed beneficial to first briefly describe the invention of the subject Patent Application in view of the amended Claims and with reference to the diagram in the Appendix. The diagram is provided to facilitate description of Applicants' invention, as now claimed, by way of a graphical representation of certain of its features. The diagram depicts aspects of the invention of the subject Patent Application, which are fully supported by the Specification thereof. No new matter is being entered into this case by the attached diagram.

Applicant's forward error correction (FEC) code, as now claimed, is applied by first "packetizing [a] data frame into frame packets, each frame packet having packet data defined by at least a first data portion and a second data portion". As is shown in the section of the diagram marked "PACKETIZING", a data frame is packetized into a frame packet having a first portion, demarcated by the right-ascending hashing, and a second portion, demarcated by the left-ascending hashing. Applicant's FEC coding proceeds by "selecting only said first data portions of packet data from each of a plurality of frame packets for forward error correction exclusive of said second data portions", which is illustrated in the region of the attached diagram marked "SELECTING". The first data portion includes packet data considered to be more important than the data in the second portion. In moving picture applications such as MPEG, such data may be that which, if it were to be lost due to errors encountered during transmission of the data, would manifest itself as a perceivable discontinuity in the visual flow of the motion picture. Such data includes, but is not limited to, motion block header data, motion vectors and DC coefficients. The second portion of the packet may contain less important data, i.e., that when lost may not even be perceived by an observer, such as textural data represented by AC coefficients.

Applicants' FEC encoding proceeds then by "concatenating said selected first data portions of said packet data from each of the plurality of frame packets into a concatenated bit field". This is shown in the attached diagram in the region

marked "CONCATENIZING", where it is to be noted that in the three frame packets illustrated, only the first data portion is selected from each, indicated once again by the right-ascending hashed region. Each of the first data portions are concatenated one with another to form the concatenated bit field, as shown. Subsequently, Applicant's invention proceeds by "generating a forward error correction code for the concatenated bit field of said first data portions". As is shown in the diagram in the region marked "FEC CODE GENERATING", the concatenated bit field is provided to an FEC encoder to produce the FEC code bits, which are only applicable to the first data portions of frame packets concatenated into the concatenated bit field. The invention of the subject Patent Application then proceeds by "packetizing said forward error correction code to form a forward error correction code packet", as shown in the region of the attached diagram marked "FEC CODE PACKETIZING". Finally, Applicant's invention, as now claimed, proceeds by "transmitting said forward error correction code packet separately from the plurality of frame packets, each of said transmitted frame packets including said first data portion and said second data portion". As is shown in the attached diagram in the region marked "TRANSMITTING", the frame packets are transmitted quite normally and without containing any FEC codes in the data frame packets themselves. This advantageously allows a decoder not implementing Applicant's invention to reassemble the frame packets into the data frame by traditional means.

The full combination of these and other features of Applicant's invention, as now recited by the amended Claims, are nowhere shown in the cited Rhee reference. In Rhee, FEC codes are generated for only video packets of a periodic frame and FEC packets formed from those codes are interspersed with packets of non-periodic frames. The number of non-periodic frames is chosen so that they may be transmitted within the periodic temporal dependency distance (PTDD), i.e., the period between periodic frames. The video packets and the FEC packets are transmitted to a receiver having a statistics gatherer/reporter 412 for counting packets that were lost during transmission. The statistics gatherer/reporter 412 then forms a report packet containing the packet loss statistics. It is this report packet that is sent back to the transmitter, where it is interpreted by the adapter 414 for extracting the packet loss data therefrom. The statistics obtained by adapter 414 are then used for adjusting the PTDD and the number of non-periodic frames is adjusted accordingly.

Despite the Examiner's indications to the contrary, adapter 414 does **not** provide data to the transmitter 408 for selected data portions; it provides to the transmitter statistical data as received in a report packet, where the statistics received thereby pertain only to loss of **complete** packets and **not portions** thereof. Further, only **complete** packets are transmitted within a given PTDD of Rhee and as the PTDD is adjusted, the number of **complete** packets is adjusted correspondingly. It is respectfully submitted that there is no description,

suggestion or even allusion to selecting portions of packets whatsoever in Rhee, much less "selecting only said first data portions of packet data from each of a plurality of frame packets for forward error correction exclusive of said second data portions", as now recited by Applicants' pending Claims. This operationally precludes then, "concatenating said selected first data portions of said packet data from each of the plurality of frame packets into a concatenated bit field", which, as the Examiner correctly observed, is not disclosed by Rhee.

The secondarily cited Glaise reference discloses nothing to overcome the clear deficiencies of Rhee with respect to Applicant's invention. Glaise's application is to that of traversing nodes of an asynchronous transfer mode (ATM) network by extending hash table concepts thereto. As is known in the ATM art, an ATM call undergoes a setup procedure before the transmission of any substantive data, during which time a virtual path routing table is established at each switch in the path between the terminals of the call. During call setup, entries are made into the table at each switch that define a mapping between a virtual channel identifier/virtual path identifier (VPI/VCI) pair received at an incoming physical port to an outgoing port. Each ATM packet, which is termed a "cell" in the art, has a cell header containing the VPI/VCI pair, as well as other information. The **entire** cell header is error-corrected through a cyclic redundancy check algorithm to generate an header error check (HEC) field, which is not to be confused with the header extension code (HEC) used in MPEG applications.

Glaise makes use of the property that the transformation on the cell header by the cyclic redundancy check algorithm forming the HEC is the same operation as forming a hash key, i.e., the HEC field, into a hash table of addresses corresponding to the VPI/VCI pair. Glaise uses scattering analysis of different contiguous bit formations in each of the VPI and VCI fields of the cell header to determine an optimal construction of the routing table so that when the HEC is used as a hash key, the number of searching operations into the table is reduced.

Admittedly, Glaise describes selecting fields from the ATM cell header when forming the table. However, nowhere does Glaise show "selecting only said first data portions of packet data from each of a plurality of frame packets for forward error correction exclusive of said second data portions", as provided by Applicants' invention, as now claimed. Consequently, as the selection of data packet portions is not performed for the purpose of error coding those portions, a system consistent with Glaise cannot "concatenat[e] said selected first data portions of said packet data from the plurality of frame packets into a concatenated bit field". It certainly follows, then, that "generating a forward error correction code for the concatenated bit field of said first data portions" cannot be performed when the selection and concatenation of the first data portions are not performed. Quite to the contrary, the HEC of Glaise is formed on the **entire** header of **each** cell so as to be consistent with ATM technology, the problems of which it was designed to overcome. Thus, the selection of data packet portions from multiple

data packets "for forward error correction exclusive of said second data portions" is not disclosed or even suggested by Glaise. That being so, it can be concluded that neither Rhee nor Glaise show or even suggest "concatenating said selected first data portions of said packet data from the plurality of frame packets into a concatenated bit field" where the first data portions were selected "from each of a plurality of frame packets for forward error correction exclusive of said second data portions", as is implemented by the invention of the subject Patent Application, as now claimed. It is respectfully submitted, then, that the combination of Rhee and Glaise cannot make obvious the invention so claimed.

The Lewis, Tan and Watanabe references were cited as showing various implementation details, all of which fail to overcome the deficiencies of the Rhee and Glaise references. That is to say, none of the references show "selecting only said first data portions of packet data from each of a plurality of frame packets for forward error correction exclusive of said second data portions", "concatenating said selected first data portions of said packet data from the plurality of frame packets into a concatenated bit field" and "generating a forward error correction code for the concatenated bit field of said first data portions". Thus, as the Lewis, Tan and Watanabe references fail to show the combination of features of Applicants' invention, as now claimed, even when combined one with another and with Rhee and Glaise, the references cannot make obvious the invention of the subject Patent Application.

All of the limitations "selecting only said first data portions of packet data from each of a plurality of frame packets for forward error correction exclusive of said second data portions", "concatenating said selected first data portions of said packet data from the plurality of frame packets into a concatenated bit field" and "generating a forward error correction code for the concatenated bit field of said first data portions" are effectively recited by all of the pending Claims of the subject Patent Application, as now amended, either by direct recitation or by inherency through dependence on a base claim directly reciting the limitations. It is believed that none of the references cited by the Examiner show the unique combination of Applicants' claimed features, even when references are combined. Thus, it is believed that the invention of the subject Patent Application, as now claimed, is neither anticipated nor made obvious by those references.

It is respectfully submitted that the subject Patent Application is in condition for allowance and such action is respectfully requested.

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